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EXAMINER
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MORRISON, JAY A

ART UNIT	PAPER NUMBER
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2168

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/602,574	<b>Applicant(s)</b> TUNNING ET AL.	
	<b>Examiner</b> Jay A. Morrison	<b>Art Unit</b> 2168	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,5,7-12,14 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-12,14 and 28-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicants arguments filed on 4/12/2006. Claims 1,4-12,14-15,17-32 are pending.
2. The rejection under 35 U.S.C. 101 to claims 1,4-5,7-12,14,28-32, non-statutory subject matter is still pending and the Office has given detailed guidance to Applicant on overcoming this rejection. Note that the cancelled claims are obviously no longer rejected.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities:  
  
As per claim 1, third paragraph: "resources; wherein" should be resources, wherein". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:  
  
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.  
  
Claims 1,4-5,7-12,14,28-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The cited claims do not produce a useful, concrete and tangible result.  
  
As per claims 1,4-5,7-12,14,28-32, the cited claims do not produce a tangible result. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of

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causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. In addition, claims that do not in any way make tangible any results are also not statutory. (Office note: to overcome this type of rejection the Applicant can simply embody the data structures in computer-readable media or some type of system or back-end server with non-volatile secondary storage, or otherwise produce a tangible result such as displaying the results to a user)

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1,4,11-12,22-23,28, and 30-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Arora et al., International Publication Number WO 01/75736.

With respect to claim 1, Arora teaches

"establishing an extensible list of attributes" (page 6, lines 12-19, whereas Arora's parameters can be modified at any time is equivalent to the claimed extensible list) "of various information resources in an information system," (page 7, lines 5-10, whereas Arora's employers' and recruits' preferences are equivalent to the claimed information resources) "and assigning a priority weight to each of the attributes in the list of attributes" (page 6, lines 20-33, whereas Arora's weighting level of characteristics is equivalent to the claimed priority weight of attributes) ",wherein each information resource can be classified according to one or more attributes" (page 6, lines 20-33, whereas Arora's described attribute is equivalent to the claimed information resource classified according to attribute);

"establishing an extensible list" (page 6, lines 12-19, whereas Arora's parameters can be modified at any time is equivalent to the claimed extensible list) "of values for the attributes in the extensible list of attributes, wherein each value is associated in the list with its corresponding attribute" (page 6, lines 20-33, whereas Arora's characteristic is equivalent to the claimed value for an attribute);

"selecting a first set of one or more of the values from the extensible list of values to be a first set of target criteria to designate a subset of the information resources" (page 6, lines 20-33, whereas Arora's employee characteristics are equivalent to the

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claimed first set of values)"; wherein the priority weights of each attribute associated with a value in the first set of target criteria are added to obtain a priority sum for the first set of target criteria" (page 6, lines 20-33, whereas Arora's total score is equivalent to the claimed priority sum);

"selecting additional sets of target criteria to designate a spectrum of subsets of the information resources," (page 11, lines 26-32, whereas Arora's function can handle any finite number of attributes is equivalent to the claimed selecting of additional sets of criteria);

"comparing a priority sum of each additional set of target criteria to the priority sum of the first set of target criteria to determine whether the particular one of the additional sets of target criteria designates a more general or a more specific subset of information resources than designated by the first set of target criteria" (page 11, line 32 through page 12, line 7, whereas Arora's quality of the match is equivalent to the claimed comparing of priority sums of targets).

With respect to claim 4, Arora teaches

"each information resource includes one or more content elements and each content element can be classified according to one or more attributes" (page 6, line 34 through page 7, line 9, whereas Arora's job position is equivalent to the claimed content element).

With respect to claim 11, Arora teaches

“each value of each attribute of each information resource is included in the extensible list of values” (page 6, lines 20-33, whereas Arora's employee characteristics are equivalent to the claimed first set of values).

With respect to claim 12, Arora teaches

“an extensible table of attributes,” (page 6, lines 12-19, whereas Arora's parameters can be modified at any time is equivalent to the claimed extensible table) “wherein various content elements in an information system possess values of the attributes and wherein each attribute in the extensible table of attributes is associated with a priority weight” (page 6, lines 20-35, whereas Arora's attributes defined and each attribute is described and weighed is equivalent to the claimed attributes possessing values and a priority weight);

“an extensible table of values of the attributes,” (page 6, lines 12-19, whereas Arora's parameters can be modified at any time is equivalent to the claimed extensible table) “wherein each value is associated with its corresponding attribute” (page 6, lines 20-33, whereas Arora's characteristic is equivalent to the claimed value for an attribute);

“and multiple sets of one or more values to designate multiple subsets of content elements” (page 11, lines 26 through page 12, line 7, whereas Arora's buyer and seller attributes are equivalent to the claimed multiple sets) “, wherein a priority weight of each attribute associated with each value in each set is summed to determine a priority sum of the respective set” (page 6, lines 20-33, whereas Arora's total score is equivalent to the claimed priority sum) “ and the priority sums of respective sets in the

multiple sets can be compared to determine similarities and differences between subsets of content elements designated by the multiple sets" (page 11, line 32 through page 12, line 7, whereas Arora's quality of the match is equivalent to the claimed comparing of priority sums of sets).

With respect to claim 22, Arora teaches

"associating priority weight values with attributes in a dynamic list of attributes" (page 6, lines 12-19, whereas Arora's parameters can be modified at any time is equivalent to the claimed dynamic list) "associated with information resources in an information system" (page 6, lines 20-33, whereas Arora's weighting level of characteristics is equivalent to the claimed priority weight of attributes);

"associating instances of attribute values with corresponding attributes in a dynamic list of attribute values" (page 6, lines 12-19, whereas Arora's parameters can be modified at any time is equivalent to the claimed dynamic list and page 6, lines 20-33, whereas Arora's each attribute described and weighted is equivalent to the claimed associating of attribute values with corresponding attributes);

"designating subsets of the information resources based on sets of one or more of the attribute values" (page 6, lines 20-33, whereas Arora's employee characteristics are equivalent to the claimed subsets);

"comparing the sets of one or more attribute values according to respective priority sums, wherein a priority sum is obtained by summing priority weight values associated with each attribute value in a set of one or more of the attribute values"



(page 11, line 32 through page 12, line 7, whereas Arora's quality of the match is equivalent to the claimed comparing of priority sums of sets).

With respect to claim 23, Arora teaches

"each information resource includes one or more content elements possessing one or more of the attributes" (page 6, lines 20-33, whereas Arora's buyer or seller defining attributes is equivalent to the claimed resource includes elements possessing attributes).

With respect to claim 28, Arora teaches

"information resources having attributes" (page 6, lines 20-35, whereas Arora's buyer or seller defining attributes defined and each attribute is described and weighed is equivalent to the claimed attributes possessing values and a priority weight);

"an extensible table of the attributes, wherein each attribute is assigned a weight" (page 6, lines 20-35, whereas Arora's attributes defined and each attribute is described and weighed is equivalent to the claimed attributes each assigned weight);

"an extensible table of values for the attributes, wherein each value is associated with its corresponding attribute" (page 6, lines 20-33, whereas Arora's characteristic is equivalent to the claimed value for an attribute);

"sets of the values, wherein each set specifies a subset of the information resources and each set can be differentiated by the sum of the weights of each attribute

represented by a value in each set" (page 6, lines 20-33, whereas Arora's total score is equivalent to the claimed priority sum).

With respect to claim 30, Arora teaches

"each information resource includes various content elements" (page 7, lines 5-10, whereas Arora's both employers' and recruits' preferences can be taken into consideration is equivalent to the claimed each resource includes various elements).

With respect to claim 31, Arora teaches

"an information resource and each content element is associated with a preferred set of values for specifying a subset of information resources that includes the information resource or the content element" (page 7, lines 5-10, whereas Arora's employers' desired characteristics are equivalent to the claimed preferred set of values).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Office presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were

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made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Office to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 5-6,14-15,17-21,24-25, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arora et al., International Publication Number WO 01/75736, as applied to claims 1,4,11-12,22-23, and 31 above, and further in view of Nathaniel, Publication Number 2003/0130887.

With respect to claim 5,

Arora teaches "each resource and each content element in each resource is linked with a set of target criteria" (page 6, lines 20-33, whereas Arora's employer desired characteristics is equivalent to the claimed resource and content element linked with set of criteria).

Arora does not explicitly indicate "and if a resource is designated as a member of a subset by a set of target criteria then priority sums of each respective set of target criteria linked to each content element in the resource are compared to the priority sum of the set of target criteria linked to the resource to rank the content elements in the resource according to similarity with the priority sum of the set of target criteria linked to the resource".

However, Nathaniel discloses “and if a resource is designated as a member of a subset by a set of target criteria then priority sums of each respective set of target criteria linked to each content element in the resource are compared to the priority sum of the set of target criteria linked to the resource to rank the content elements in the resource according to similarity with the priority sum of the set of target criteria linked to the resource” (paragraph [0031], whereas Nathaniel's generating a matrix of ads that are compatible with subscribers and then ordering the matching ads based on priorities and weights is equivalent to the claimed comparing the priority sums of sets and ranking the content according to similarities).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “and if a resource is designated as a member of a subset by a set of target criteria then priority sums of each respective set of target criteria linked to each content element in the resource are compared to the priority sum of the set of target criteria linked to the resource to rank the content elements in the resource according to similarity with the priority sum of the set of target criteria linked to the resource” would have given those skilled in the art the tools to effectively target users based on their wants or needs. This gives the user the advantage of quickly and efficiently determining proper content.

With respect to claim 6,

Arora does not explicitly indicate “localizing information resources and content elements in the information system for a user of the information system by presenting

the user with one or more of the subsets of the information resources designated by one or more of the first set of target criteria and the additional sets of target criteria”.

However, Nathaniel discloses “localizing information resources and content elements in the information system for a user of the information system by presenting the user with one or more of the subsets of the information resources designated by one or more of the first set of target criteria and the additional sets of target criteria” (paragraph [0033], whereas Nathaniel’s delivering the ads to the subscriber is equivalent to the claimed presenting user with subset of information resources designated by target criteria).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “localizing information resources and content elements in the information system for a user of the information system by presenting the user with one or more of the subsets of the information resources designated by one or more of the first set of target criteria and the additional sets of target criteria” would have given those skilled in the art the tools to target content to users. This gives the user the advantage of having custom content based on needs or wants.

With respect to claim 14,

Arora does not explicitly indicate “a list of the multiple sets, wherein the list of multiple sets is arranged according to a numerical order of the respective priority sums of sets in the multiple sets”.

However, Nathaniel discloses “a list of the multiple sets, wherein the list of multiple sets is arranged according to a numerical order of the respective priority sums of sets in the multiple sets” (paragraph [0031], whereas Nathaniel’s generating a matrix of ads that are compatible with subscribers and then ordering the matching ads based on priorities and weights is equivalent to the claimed arranging the list of sets numerically in order of their priority sums).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “a list of the multiple sets, wherein the list of multiple sets is arranged according to a numerical order of the respective priority sums of sets in the multiple sets” would have given those skilled in the art the tools to effectively target users based on their wants or needs. This gives the user the advantage of quickly and efficiently determining proper content.

With respect to claim 15, Arora teaches

“a classification engine to determine attributes of information resources in an information system” (page 6, lines 20-32, whereas Arora’s attributes defined is equivalent to the claimed engine to determine attributes);

“an attribute table manager in communication with a dynamic table” (page 6, lines 12-19, whereas Arora’s parameters can be modified at any time is equivalent to the claimed dynamic table) “of attributes and priorities” (page 6, lines 20-33, whereas Arora’s attributes described and weighted is equivalent to the claimed table of attributes and priorities);

“a prioritizer to assign priority weights to each attribute in the attribute table” (page 6, lines 20-33, whereas Arora’s attributes weighted is equivalent to the claimed assigning of weights to each attribute);

“a values table manager in communication with a dynamic table of values,” (page 6, lines 12-19, whereas Arora’s parameters can be modified at any time is equivalent to the claimed dynamic table) “wherein each value and its associated attribute possessed by one of the information resources is represented in the values table” (page 6, lines 20-33, whereas Arora’s attribute is described is equivalent to the claimed attributes represented in values table);

“a target criteria engine to create target criteria sets of one or more of the values, wherein a target criteria set designates a subset of the information resources in the information system based on the one or more values” (page 7, lines 15-19, whereas Arora’s no limit to attributes that can be used is equivalent to the claimed target set designating a subset).

“having a target criteria set comparator to compare a priority sum of a first target criteria set to a priority sum of a second target criteria set,” (page 11, line 32 through page 12, line 7, whereas Arora’s quality of the match is equivalent to the claimed comparing of priority sums of targets) “wherein a priority sum is the sum of the priority weights of the values in a given target criteria set” (page 6, lines 20-33, whereas Arora’s total score is equivalent to the claimed priority sum).

Arora does not explicitly indicate “and a localization engine to make information resources in the subset available to a user of the information system”.

However, Nathaniel discloses “and a localization engine to make information resources in the subset available to a user of the information system” (paragraph [0033], whereas Nathaniel’s delivering the ads to the subscriber is equivalent to the claimed engine to make information in the subset available to the user).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “and a localization engine to make information resources in the subset available to a user of the information system” would have given those skilled in the art the tools to target content to users. This gives the user the advantage of having custom content based on needs or wants.

With respect to claim 17,

Arora does not explicitly indicate “the target criteria sets are stored by the content management engine”.

However, Nathaniel discloses “the target criteria sets are stored by the content management engine” (paragraph [0031], whereas Nathaniel’s loads this plan from the database is equivalent to the claimed sets stored).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “the target criteria sets are stored by the content management engine” would have given those skilled in the art the tools to store user criteria for later processing. This gives the user the advantage of having access to the sets at some point in the future.



With respect to claim 18,

Arora does not explicitly indicate “the target criteria sets are ranked according to their respective priority sums”.

However, Nathaniel discloses “the target criteria sets are ranked according to their respective priority sums” (paragraph [0031], whereas Nathaniel’s generating a matrix of ads that are compatible with subscribers and then ordering the matching ads based on priorities and weights is equivalent to the claimed ranking sets according to their priority sums).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “the target criteria sets are ranked according to their respective priority sums” would have given those skilled in the art the tools to effectively target users based on their wants or needs. This gives the user the advantage of quickly and efficiently determining proper content.

With respect to claim 19, Arora teaches

“the target criteria set comparator compares a priority sum of a target criteria set requested by a user to a priority sum of a stored target criteria set” (page 6, lines 20-33, whereas Arora’s total score function of all desired characteristics generating matches with potential employees is equivalent to the claimed comparing priority sums).

With respect to claim 20, Arora teaches

“a target criteria set link module to link a preferred target criteria set to each information resource and each content element included in each information resource” (page 7, lines 5-10, whereas Arora’s employers’ desired characteristics are equivalent to the claimed linking of preferred criteria to each information resource and each element).

With respect to claim 21,

Arora does not explicitly indicate “a content ranking module to compare a priority sum of each preferred target criteria set linked to content elements included in an information resource to the priority sum of the target criteria set linked to the information resource and rank the content elements according to a comparison result”.

However, Nathaniel discloses “a content ranking module to compare a priority sum of each preferred target criteria set linked to content elements included in an information resource to the priority sum of the target criteria set linked to the information resource and rank the content elements according to a comparison result” (paragraph [0031], whereas Nathaniel’s generating a matrix of ads that are compatible with subscribers and then ordering the matching ads based on priorities and weights is equivalent to the claimed ranking of sets according to their priority sums).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “a content ranking module to compare a priority sum of each preferred target criteria set linked to content elements included in an information resource to the priority sum of the target criteria set linked to the

information resource and rank the content elements according to a comparison result" would have given those skilled in the art the tools to effectively target users based on their wants or needs. This gives the user the advantage of quickly and efficiently determining proper content.

With respect to claim 24,

Arora teaches "instructions to link each information resource and each content element in each information resource with a set of one or more of the attribute values" (page 6, lines 20-33, whereas Arora's employer desired characteristics is equivalent to the claimed resource and content linked to attribute value).

Arora does not explicitly indicate "and if an information resource is designated as a member of a subset by a set of one or more of the attribute values then to rank each content element in an information resource according to a difference between a priority sum of a set of one or more of the attribute values linked to the content element and a priority sum of a set of one or more of the attribute values linked to the information resource, wherein a priority sum is a sum of each priority weight value of each attribute associated with each attribute value in a set of one or more attribute values".

However, Nathaniel discloses "and if an information resource is designated as a member of a subset by a set of one or more of the attribute values then to rank each content element in an information resource according to a difference between a priority sum of a set of one or more of the attribute values linked to the content element and a priority sum of a set of one or more of the attribute values linked to the information

resource, wherein a priority sum is a sum of each priority weight value of each attribute associated with each attribute value in a set of one or more attribute values" (paragraph [0031], whereas Nathaniel's generating a matrix of ads that are compatible with subscribers and then ordering the matching ads based on priorities and weights is equivalent to the claimed ranking sets according to their priority sums).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of "and if an information resource is designated as a member of a subset by a set of one or more of the attribute values then to rank each content element in an information resource according to a difference between a priority sum of a set of one or more of the attribute values linked to the content element and a priority sum of a set of one or more of the attribute values linked to the information resource, wherein a priority sum is a sum of each priority weight value of each attribute associated with each attribute value in a set of one or more attribute values" would have given those skilled in the art the tools to effectively target users based on their wants or needs. This gives the user the advantage of quickly and efficiently determining proper content.

With respect to claim 25,

Arora does not explicitly indicate "instructions to localize information resources and content elements in the information system for a user of the information system by providing an interface between the user and one or more of the subsets of the

information resources and content elements of each information resource in the one or more subsets”.

However, Nathaniel discloses “instructions to localize information resources and content elements in the information system for a user of the information system by providing an interface between the user and one or more of the subsets of the information resources and content elements of each information resource in the one or more subsets” (paragraph [0033], whereas Nathaniel’s delivering the ads to the subscriber is equivalent to the claimed providing of an interface between the user and subsets).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of “instructions to localize information resources and content elements in the information system for a user of the information system by providing an interface between the user and one or more of the subsets of the information resources and content elements of each information resource in the one or more subsets” would have given those skilled in the art the tools to target content to users. This gives the user the advantage of having custom content based on needs or wants.

With respect to claim 32,

Arora does not explicitly indicate “a content element included in an information resource is ranked relative to other content elements in the information resource according to a magnitude of a difference between a priority sum associated with the

content element and a priority sum associated with the information resource, wherein a priority sum is a sum of weights of each attribute represented by a value in the preferred set of values associated with each information resource and each content element".

However, Nathaniel discloses "a content element included in an information resource is ranked relative to other content elements in the information resource according to a magnitude of a difference between a priority sum associated with the content element and a priority sum associated with the information resource, wherein a priority sum is a sum of weights of each attribute represented by a value in the preferred set of values associated with each information resource and each content element" (paragraph [0031], whereas Nathaniel's generating a matrix of ads that are compatible with subscribers and then ordering the matching ads based on priorities and weights is equivalent to the claimed ranking elements according to their priority sums).

It would have been obvious to one of ordinary skill in the art to combine Arora and Nathaniel because using the steps of "a content element included in an information resource is ranked relative to other content elements in the information resource according to a magnitude of a difference between a priority sum associated with the content element and a priority sum associated with the information resource, wherein a priority sum is a sum of weights of each attribute represented by a value in the preferred set of values associated with each information resource and each content element" would have given those skilled in the art the tools to effectively target users based on their wants or needs. This gives the user the advantage of quickly and efficiently determining proper content.

9. Claims 7-10,26-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arora et al., International Publication Number WO 01/75736, as applied to claims 1,22, and 28 above, and further in view of Arora et al., Publication Number 2002/0032638.

With respect to claim 7,

Arora (WO 01/75736) does not explicitly indicate “a database structure of the information system remains unchanged during expansion and contraction of the extensible list of attributes and the extensible list of values”.

However, Arora (2002/0032638) discloses “a database structure of the information system remains unchanged during expansion and contraction of the extensible list of attributes and the extensible list of values” (paragraph [0049], whereas Arora’s (2002/0032638) configurator completely customizable and administrators can define any number or type of descriptor variables is equivalent to the claimed database structure remaining unchanged during expansion and contraction of the lists).

It would have been obvious to one of ordinary skill in the art to combine Arora (WO 01/75736) and Arora (2002/0032638) because using the steps of “a database structure of the information system remains unchanged during expansion and contraction of the extensible list of attributes and the extensible list of values” would have given those skilled in the art the tools to build a dynamic system that would not

need frequent reprogramming or modification. This gives the user the advantage of using the system in a variety of applications due to its dynamic design.

With respect to claim 8, Arora (WO 01/75736) teaches

Arora (WO 01/75736) does not explicitly indicate “adding attributes to the extensible list of attributes”.

However, Arora (2002/0032638) discloses “adding attributes to the extensible list of attributes” (paragraph [0098], whereas Arora’s (2002/0032638) edit market panel for specifying attribute descriptors employed by the market is equivalent to the claimed adding of attributes to the extensible list).

It would have been obvious to one of ordinary skill in the art to combine Arora (WO 01/75736) and Arora (2002/0032638) because using the steps of “adding attributes to the extensible list of attributes” would have given those skilled in the art the tools to go beyond the limitation of only a few criteria or attributes available by allowing attributes to be added. This gives the user the advantage of allowing more customization to be available with the new attributes added.

With respect to claim 9, Arora (WO 01/75736) teaches

Arora (WO 01/75736) does not explicitly indicate “adding values associated with the added attributes to the extensible list of values”.

However, Arora (2002/0032638) discloses “adding values associated with the added attributes to the extensible list of values” (paragraph [0098], whereas Arora’s



(2002/0032638) adding new data is equivalent to the claimed adding of values with the attributes to the list of values).

It would have been obvious to one of ordinary skill in the art to combine Arora (WO 01/75736) and Arora (2002/0032638) because using the steps of “adding values associated with the added attributes to the extensible list of values” would have given those skilled in the art the tools to describe the values or categories available for selection. This gives the user the advantage of having greater flexibility in describing attributes.

With respect to claim 10,

Arora (WO 01/75736) discloses “selecting a set of values including one or more of the added attributes to designate a subset of the information resources with greater specificity” (page 6, lines 20-33, whereas Arora’s (WO 01/75736) employee characteristics are equivalent to the claimed first set of values).

With respect to claim 26,

Arora (WO 01/75736) does not explicitly indicate “instructions to add attributes to the dynamic list of attributes”.

However, Arora (2002/0032638) discloses “instructions to add attributes to the dynamic list of attributes” paragraph [0098], whereas Arora’s (2002/0032638) edit market panel for specifying attribute descriptors employed by the market is equivalent to the claimed adding of attributes to the dynamic list).

It would have been obvious to one of ordinary skill in the art to combine Arora (WO 01/75736) and Arora (2002/0032638) because using the steps of “instructions to add attributes to the dynamic list of attributes” would have given those skilled in the art the tools to go beyond the limitation of only a few criteria or attributes available by allowing attributes to be added. This gives the user the advantage of allowing more customization to be available with the new attributes added.

With respect to claim 27,

Arora (WO 01/75736) does not explicitly indicate “instructions to add attribute values associated with the added attributes to the dynamic list of attribute values”.

However, Arora (2002/0032638) discloses “instructions to add attribute values associated with the added attributes to the dynamic list of attribute values” paragraph [0098], whereas Arora’s (2002/0032638) adding new data is equivalent to the claimed adding of values with the attributes to the list of values).

It would have been obvious to one of ordinary skill in the art to combine Arora (WO 01/75736) and Arora (2002/0032638) because using the steps of “instructions to add attribute values associated with the added attributes to the dynamic list of attribute values” would have given those skilled in the art the tools to describe the values or categories available for selection. This gives the user the advantage of having greater flexibility in describing attributes.

With respect to claim 29,

Arora (WO 01/75736) does not explicitly indicate “the extensible table of the attributes and the extensible table of values can be expanded without changing a database structure of the information system”.

However, Arora (2002/0032638) discloses “the extensible table of the attributes and the extensible table of values can be expanded without changing a database structure of the information system” (paragraph [0049], whereas Arora’s (2002/0032638) configurator completely customizable and administrators can define any number or type of descriptor variables is equivalent to the claimed table of attributes and table of values can be expanded without change to database structure).

It would have been obvious to one of ordinary skill in the art to combine Arora (WO 01/75736) and Arora (2002/0032638) because using the steps of “the extensible table of the attributes and the extensible table of values can be expanded without changing a database structure of the information system” would have given those skilled in the art the tools to build a dynamic system that would not need frequent reprogramming or modification. This gives the user the advantage of using the system in a variety of applications due to its dynamic design.

### ***Response to Arguments***

10. Applicant's arguments filed 4/12/06 have been fully considered but they are not persuasive.

11. First, Applicants argue that Claims 1,4-12,14 and 22-32 are not disclosed by International Publication Number Wo 01/75736 to Arora et al. ("Arora" hereinafter).

In response, the Office respectfully disagrees.

The Office respectfully submits that Arora does teach the claims argued by the Applicant, and notices that the argument for all independent claims, and those that depend therefrom, is that Arora fails to disclose criteria subsets, priority subsets and comparisons thereof. Regarding the arguments concerning subsets, the Office notes that in all cases subsets consist of "one or more" attributes or values or attribute values. Arora does in fact teach one attribute, which meets the requirements of a subset in all, cases and therefore meets the requirements of the claim. In this case the total score as taught by Arora is in fact the same as the associated priority sum and can be compared to one another.

In regards to Arora not teaching criteria comparison, the Office disagrees and submits that direct comparisons can be made very easily in all examples since there is only one element in the subset. It also logically follows that the total score is therefore also equivalent to the priority sums comparison is also appropriate. (note: the Office noticed that certain limitations in these claims contain "can be", which identify optionally recited limitations do not require the steps to be performed (see MPEP § 2106 Section II(C)). The Office submits that all limitations are taught by the reference, however the Applicant may want to consider revising that particular wording so there is no question about the limiting effect)

Accordingly, Arora discloses Claims 1,4-12,14 and 22-32, or the respective limitations as noted therein.

12. Next, Applicants argue that Claims 7-10, 26-27, and 29 are not disclosed by Arora et al. ("Arora '638" hereinafter), specifically "wherein a database structure of the information system remains unchanged during expansion and contraction of the extensible list of attributes and the extensible list of value".

In response, the Office respectfully disagrees.

The Office respectfully submits that Arora '638 does not teach that a field is added to the database as the Applicant argues. On the contrary, Arora '638 discloses that a new row, perhaps in a separate table within the database, is added. This is nowhere close to the restructuring of the entire data structure, which would in any event likely entail complicated rebuilding of the existing data within any medium or large data structure not to mention the likely re-engineering of the application itself. In fact, as proof, the data structure is outlined in the Arora '638 reference on pages 14-49, and therefore obviously the underlying data structure does not change. Also, the Applicants point to Arora's Table I, which is exemplary and simply displays data and imposing a data structure on this exemplary data is problematic at best. Applicant argument that 'addition of attributes changes the Table' is true, but Office argues that the adding of a column to a table of data is not equivalent to adding a field to a table in a data structure, and this is well known in the art.

Accordingly, Arora '638 discloses the limitation.

***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record, listed on form PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay A. Morrison whose telephone number is (571) 272-7112. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jay Morrison  
TC2100

A handwritten signature in black ink, appearing to read 'Tim Vo', with a stylized, flowing script.

Tim Vo  
TC2100